

REMARKS

Claims 1-27 are pending in this application. Claims 2-5, 11-15 and 21-27 are cancelled herein without prejudice as non-elected claims pending the filing of a divisional application. Claims 1, 8, 9 and 16 are amended. Claim 10 is cancelled, and Claims 28-43 are newly added herein. Applicants respectfully request reconsideration of the claims in view of the following remarks.

Claims 8, 19 and 20 were rejected by the Examiner under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. This rejection is hereby respectfully traversed.

The Examiner stated in the Office Action that in Claim 8, the phrases "a gate oxide electrode" and "a gate electrode" were unclear. Amendments are made to clarify Claim 8; the phrase "a gate oxide electrode" is used throughout. Accordingly, reconsideration and allowance are respectfully requested for Claim 8.

The Examiner also remarked that Fig. 16 discloses only a single fuse activation means for simultaneously blowing both upper and lower antifuse(s), and it was unclear why Claim 19, a dependent of Claim 16, discloses a lower and upper fuse activation circuit used for blowing both lower and upper antifuse(s).

Applicants respectfully direct the Examiners attention to Fig. 15 and the following description on page 40 (*Lines 6-23*):

Referring now to Fig. 15, there is shown in block form and schematic form circuitry 170 for independent activation (blowing), per conventional technique, selectively of one or more (parallel connected) lower antifuses (e.g., antifuse 121 of Figs. 1, 2, and 3) and separately of one or more (parallel connected) upper antifuses (e.g., antifuse 122 of Figs. 1, 2, and 3) according to the invention, including one or all of the lower antifuses and separately one or all of the upper antifuses, per the embodiments of Figs. 1 to 3, 4 to 6, 7, 8 to 10, 11 to 12 and 13 to 14. Circuitry 170 comprises a lower antifuse circuit 171, an upper antifuse circuit 172, a lower fuse blow circuit 173, an upper fuse blow circuit 174, a lower fuse state sensing and indicating circuit 175, an upper fuse state sensing and indicating circuit 176, a switch S1, and a switch S2. In one illustrative example, switch S1 is shown in a closed position and switch S2 is shown in an open position. Upper fuse state sensing and indicating circuit 176 has an output 178, and lower fuse state sensing and indicating circuit 175 has an output 177.

Thus, Claim 16 claims lower and upper fuse activation circuits and Claim 19 further recites that the circuits may be applied simultaneously to blow both upper and lower antifuses. This operation is further described in the specification on page 42 (*Lines 23-27*) and page 43 (*Lines 1-4*):

With ground potential coupled to terminal 123 and switches S1 and S2 not used, the circuitry 170 operates as follows. A high voltage applied to terminal 127 by the upper fuse blow circuit 173 causes the upper antifuse 121 to blow. A high voltage applied to terminal 125 by the lower fuse blow circuit 173 causes the lower antifuse 122 to blow. If high voltages are generated by the upper and lower blow circuits 174 and 173 at the same time, both of the antifuses 121 and 122 can be blown simultaneously.

Reconsideration and allowance of Claims 8, 19 and 20 over the §112 rejections are therefore requested.

Claims 10 and 16 were objected to as being dependent upon a rejected base claim. Each claim has been amended herein. Claim 10 now depends from a substantially amended Claim 1 which incorporates features indicated as allowable, as further described below; while Claim 16 is amended herein and is presented in independent form as suggested by the Examiner. Accordingly, withdrawal of the objection and allowance of these claims is respectfully requested.

Claims 1, 6, 7 and 9 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2002/0088998 A1 to Knall, *et al.* This rejection is hereby respectfully traversed.

In the remarks, the Examiner acknowledged that certain features of Claims 10 and 11, e.g., the use of an upper fuse element between an upper counter electrode and an intermediate electrode and the direct interconnection of the fuse element with the common intermediate electrode, were not found in the prior art of record. Claim 1 has been amended herein to specifically recite these features with respect to the upper fuse element. Accordingly, Applicants believe that amended Claim 1 is unanticipated, and non-obvious, over Knall, *et al.* and the other prior art of record as indicated by the Examiner's findings. Reconsideration and allowance is therefore requested for Claim 1.

Claims 6 and 7 depend from and provide further patentable limitations on the apparatus of Claim 1. Accordingly, these dependent claims are also believed to be allowable and reconsideration is respectfully requested.

Claim 9 is amended herein and now depends from an allowable parent claim and recites additional limitations on the upper fuse element. Accordingly, reconsideration and allowance is requested.

Claim 10 is cancelled herein as reciting features now incorporated into Claim 1.

Claim 8 was indicated as being allowable by the Examiner if amended to overcome the 112 rejection addressed above. Claim 8 is amended herein and is presented in independent form. Claim 8 recites a lower antifuse in the form of a gate oxide antifuse which are features indicated by the Examiner as not being found in the prior art of record, and is therefore likewise believed to be allowable. Reconsideration and allowance is requested for Claim 8.

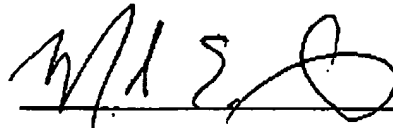
Claims 16-20 are also believed to be allowable. Claim 16 was indicated as being allowable and is amended herein and presented in independent form. Claims 17-20 depend from and recite additional limitations on the apparatus of Claim 16. Reconsideration and allowance is therefore respectfully requested.

New Claims 28-32 depend from and recite additional limitations on each of the allowable independent Claims 1, 8 and 16. As each of these claims recites additional features on parent claims which recite limitations acknowledged by the Examiner as not being present in the prior art, each of these newly submitted claims is believed to be allowable, and reconsideration and allowance is therefore respectfully requested. New Claims 33-43 also each recite limitations

acknowledged by the Examiner as not being in the prior art. Consideration and allowance of these claims is requested.

Applicants have made diligent efforts to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mark E. Courtney, Applicants' attorney, at 972-732-1001, so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge Deposit Account No. 50-1065.

Respectfully submitted,



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